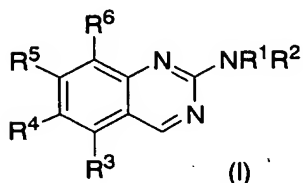


CLAIMS

1. A 2-amino quinazoline derivative represented by formula (I)



(wherein R^1 and R^2 are the same or different, and each represents a hydrogen atom, substituted or unsubstituted lower alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted aryl, a substituted or unsubstituted aromatic heterocyclic group, or a substituted or unsubstituted alicyclic heterocyclic group, or R^1 and R^2 are combined together with the adjacent nitrogen atom to form a substituted or unsubstituted aromatic heterocyclic group, or a substituted or unsubstituted alicyclic heterocyclic group,

R^3 represents substituted or unsubstituted aryl, a substituted or unsubstituted aromatic heterocyclic group, substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkenyl, or a substituted or unsubstituted alicyclic heterocyclic group,

R^4 and R^5 are the same or different, and each represents a hydrogen atom, halogen, hydroxy, carboxy, substituted or unsubstituted lower alkyl, substituted or unsubstituted

cycloalkyl, substituted or unsubstituted lower alkenyl, substituted or unsubstituted cycloalkenyl, substituted or unsubstituted lower alkoxy, substituted or unsubstituted cycloalkoxy, substituted or unsubstituted lower alkanoyl, substituted or unsubstituted aryl, a substituted or unsubstituted aromatic heterocyclic group, or a substituted or unsubstituted alicyclic heterocyclic group, proviso that they are not simultaneously hydrogen atoms; and

R⁶ represents hydroxy or substituted or unsubstituted lower alkoxy), or a pharmaceutically acceptable salt thereof.

2. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R¹ and R² are the same or different, and each represents a hydrogen atom, substituted or unsubstituted lower alkyl, or substituted or unsubstituted cycloalkyl.

3. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R¹ and R² are the same or different, and each represents a hydrogen atom, methyl, ethyl, or isopropyl.

4. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to

claim 1, wherein R^1 represents a hydrogen atom, and R^2 represents substituted or unsubstituted lower alkyl, or substituted or unsubstituted cycloalkyl.

5. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R^1 represents a hydrogen atom, and R^2 represents methyl, ethyl, or isopropyl.

6. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R^1 represents a hydrogen atom, and R^2 represents cyclopropyl or cyclopropylmethyl.

7. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to claim 1, wherein R^1 represents a hydrogen atom, and R^2 represents aralkyl.

8. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 7, wherein R^3 represents a substituted or unsubstituted aromatic heterocyclic group.

9. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 7, wherein R^3 represents substituted or unsubstituted pyridyl.

10. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any

one of claims 1 to 7, wherein R³ represents substituted or unsubstituted aryl.

11. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 7, wherein R³ represents substituted or unsubstituted phenyl.

12. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 7, wherein R³ represents substituted or unsubstituted cycloalkyl, substituted or unsubstituted cycloalkenyl, or a substituted or unsubstituted alicyclic heterocyclic group.

13. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 12, wherein R⁴ or R⁵ represents formyl or carboxy.

14. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 12, wherein R⁴ represents substituted or unsubstituted lower alkyl, or substituted or unsubstituted lower alkenyl.

15. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 12, wherein R⁴ represents lower alkyl which substituted with carboxy, or lower alkenyl which

substituted with carboxy.

16. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 12, wherein R^4 represents substituted or unsubstituted aryl.

17. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 12, wherein R^4 represents aryl which substituted with carboxy.

18. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents substituted or unsubstituted lower alkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted lower alkenyl, or substituted or unsubstituted cycloalkenyl.

19. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents substituted or unsubstituted aryl, or a substituted or unsubstituted aromatic heterocyclic group.

20. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents lower alkyl which substituted with carboxy, lower alkenyl which substituted with carboxy, aryl which substituted with

carboxy, an aromatic heterocyclic group which substituted with carboxy, or an alicyclic heterocyclic group which substituted with carboxy.

21. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents lower alkyl which substituted with carboxy.

22. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents aryl which substituted with carboxy.

23. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents phenyl which substituted with carboxy.

(24) The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents an aromatic heterocyclic group which substituted with carboxy.

25. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R^5 represents an alicyclic heterocyclic group which substituted with carboxy.

26. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any

one of claims 1 to 17, wherein R⁵ represents an alicyclic heterocyclic group which substituted with carboxymethyl.

27. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 17, wherein R⁵ represents halogen.

28. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 27, wherein R⁶ represents substituted or unsubstituted lower alkoxy.

29. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 27, wherein R⁶ represents methoxy.

30. The 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 27, wherein R⁶ represents hydroxy.

31. A pharmaceutical composition which comprises the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30 as an active ingredient.

32. A phosphodiesterase (PDE)-IV inhibitor which comprises the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30 as an active ingredient.

33. A preventive and/or therapeutic agent for diseases related to the function of phosphodiesterase

(PDE)-IV which comprises the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30 as an active ingredient.

34. A method for preventing and/or treating diseases related to the function of phosphodiesterase (PDE)-IV which comprises a step of administering an effective amount of the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30.

35. Use of the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30 for the manufacture of phosphodiesterase (PDE)-IV inhibitor.

36. Use of the 2-amino quinazoline derivative or a pharmaceutically acceptable salt thereof according to any one of claims 1 to 30 for the manufacture of a preventive and/or therapeutic agent for diseases related to the function of phosphodiesterase (PDE)-IV.